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(54) Title: **ALKENYLSUCCINIC ANHYDRIDE COMPOSITION AND METHOD OF USING THE SAME**

(57) **Abstract:** The invention relates to an aqueous sizing composition comprising (a) an emulsion comprising an alkenylsuccinic anhydride component containing alkenylsuccinic anhydride particles suspended in a first starch component containing emulsifying starch selected from the group consisting of non-ionic starches, ionic starches, and mixtures thereof, and (b) a second starch component selected from the group consisting of non-ionic starches, ionic starches and mixtures thereof, such that the alkenylsuccinic anhydride and the starch in the emulsion and the second starch component are present at a starch: alkenylsuccinic anhydride weight ratio that is sufficiently high to enable the sizing composition to impart useful sizing properties to a fibrous substrate when the sizing composition contacts the fibrous substrate. The invention also relates to fibrous substrates treated with the sizing composition, processes for making the composition and processes for using such a composition, and other compositions. In one embodiment, alkylene ketene dimer is used instead of alkenylsuccinic anhydride.